

REMARKS/ARGUMENTS

The Office Action mailed August 10, 2007 has been received and its contents carefully considered. Reconsideration and withdrawal of the outstanding rejections are respectfully requested in view of the foregoing amendments and the following remarks.

Claims 14-16, 19-21 and 24 were rejected as being unpatentable over Mitchell et al., in view of Hegler. This rejection is respectfully traversed.

Without conceding the propriety of the rejections, independent claim 14 has been amended to recite that the extruding step extrudes a tubular smooth inner fluoropolymer layer having a substantially smooth inner surface. Claim 14 has also been amended to recite that the forming step forms a jacket having a substantially smooth outer surface which is adhered over the inner layer. Further, claim 14 has been amended to recite that the corrugating step is performed after the performing step and that the corrugating step corrugates the outer surface of the jacket to the outer surface of the jacket has undulations.

Thus, according to some preferred embodiments as recited in claim 14, a tubular component is provided that can have an appropriate jacket material surrounding it. During the forming step, both the inside and outside diameters of the tube are smooth. Then, undulations can be formed into the outer jacket material, leaving the inner diameter generally smooth but the outer diameter having undulations. The resulting tubular component then has a generally smooth inner diameter with an irregular jacket material outer surface. Such a resulting product can have superior kink resistance and routability compared to a tubular component with a constant outer surface. In addition, keeping the inner diameter substantially smooth aids in fluid flow without introducing turbulence into the fluid flowing through the tubes.

It is respectfully submitted that the prior art does not teach or suggest the features recited in claim 14. For example, Mitchell discloses extruding individual layers, and while the material is still in a melt condition forming corrugations into the tube. This process is similar to a continuous flow molding operation where the molds that form the corrugations also cool or solidify the material before the tube exits the machine. A disadvantage of the system disclosed in Mitchell is that a smooth inner surface is not provided, and hence fluid turbulence will occur inside the finished tube during use. Thus, it is respectfully submitted that Mitchell does not teach or suggest extruding a tube having a substantially smooth inner surface, forming a jacket over the inner layer substantially smooth outer surface, and then subsequently corrugating the jacket so that it has undulations.

The reference in the Office Action to “injection molding the corrugation” is not well understood by the Applicants. Mitchell is not understood to be an injection molding process. However, in any event, amended independent claim 14 is believed patentable for the reasons given herein.

Turning next to Hegler, the Office Action recognizes that Mitchell fails to disclose the step of forming a smooth inner layer and corrugating the jacket. Hegler is cited in the Office Action as allegedly disclosing forming a smooth inner layer and corrugating a jacket in a tube. However, it is respectfully submitted that any proposed combination of the teachings of Mitchell with Hegler would not be appropriate since, when the references themselves are looked at, such a combination would not work. It is noted that at the exit of the extrusion process in Mitchell, the materials are in a molten state. Thus, if Hegler’s system were applied in combination with Mitchell, the material would stick and build up on the apparatus, and the tubular component would not be able to proceed through Hegler’s convoluting process.

Turning to the dependent claims, it is noted that some of the dependent claims were rejected as being unpatentable over Mitchell in view of Hegler. Claim 25 was rejected over Mitchell in view of Hegler and in view of de Rocheprise, and claim 17 was rejected based on Mitchell and Hegler in view of Egres. The dependent claims are believed allowable for the reasons given above with respect to claim 14. In addition, it is noted that de Rocheprise relates to changing the orientation of PTFE extrusion. This technology is related to the past extrusion dye which is used to form the final product shape. After this operation, the tube must first be dried to remove the lubrication required to extrude PTFE and then sintered to bond the PTFE powder together. Thus, the process taught in de Rocheprise could not be combined with Mitchell's process since the PTFE must be sintered in the gel state while Mitchell's system requires molten material. In addition, Egres relates to wrapping a film around a mandrel and then sintering the material to form a tube. Egres does not relate to a system that would provide a generally smooth inner surface and an undulated outer surface as recited in claim 14.

The indication in the Office Action that claim 18 contains allowable subject matter is noted with appreciation. Claim 18 has been rewritten into independent form including the features that were previously recited in independent claim 14, prior to amendment.

In view of the foregoing, reconsideration and allowance of the application is believed in order and such action is earnestly solicited.

Should the Examiner believe that a telephone conference would expedite issuance of the application, the Examiner is respectfully invited to telephone the undersigned attorney at (202) 861-1696.

No fee is believed necessary, but should a fee be applicable, please charge to Deposit
Account 50-2036.

Respectfully submitted,
BAKER & HOSTETLER LLP



Leo J. Jennings
Reg. No. 32,902

Date: November 13, 2007
Washington Square, Suite 1100
1050 Connecticut Avenue, NW
Washington, DC 20036-5304
Telephone: 202-861-1500
Direct: 202-861-1545
Facsimile: 202-861-1783